25: Ferrars E-5 (ca. 1890) 1901 APl Burma
Burmese AP4

222. CANOPY OF GREAT [illegible] (VI. pp. 30, 101).

thing like a spoke-shave (*daing-dyait*), for the rough shaping of the blades after forging, to save their files. The blacksmiths make the axes of the country also. The old Burman axe consists of a long-handled wooden mallet with an iron tip like a small spade. The smiths also make spear-heads for the hill-people, iron shoes for ploughs, mattocks and hoes, tires and axles of carts, dee nails for boats, nippers for sugar-cane and betel-nut, and other tools. They do repairs of locks and fire-arms. A special class of iron-work is making *tl* for *zedi*. The tinsmith's trade was unknown in Burma until fifty years ago. In Pegu it is still in Indian hands; but in Mandalay the Burman tinsmiths are unequalled.

Argentiferous galena is found in Burma, but the ore barely repays working for the sake of the lead. The silver used in Burma and most of the gold is imported from China, India, and Europe. A dozen villages in different parts of Burma get a living by sifting the sand of streams which bear gold. A broad thin wooden dish shaped like a flat cone is filled with sand and gravel, and worked at the water-level with a rotary movement, by which the lighter material is driven out centrifugally. The dish is filled and refilled, and after seven or eight hours' work as many grains weight of gold flakes will have accumulated in the depression at the centre. The out-turn of a steady worker is three to five tikals of gold in the season.

The stock in trade of the gold and silver worker consists of a bamboo blast, clay crucibles, blowpipe, solder and flux, aquafortis and mercury, hammers, punches and anvils of bronze and iron, wire-plate and beading-plate. Bullion is furnished by the customer, who pays from one half up to the full weight, in

223. MOUNTAIN CASCADE.

25: Ferrars E-5 (ca. 1890) 1901 AP1 Burma
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234. WASHING FOR GOLD.

silver, of the work, for workmanship. The fineness of the gold used is from eighteen to twenty-two and a half carats. Copper is the alloy for gold (four to sixteen *yué* of copper to the *kyat* or tikal). Silver is used of rupee fineness (four *yué* of alloy to the *kyat*) up to pure metal (*base*). The intermediate fineness of sterling silver is the most usual. Silver is alloyed with copper and with zinc. With the few implements named above, plate for display and ornaments for women's wear are fashioned, of beautiful design and considerable finish. Chasing and *repoussé* ornament are used for the gold and silver plate, filigree and beading for the gold ornaments. Those who can afford it, serve drinking-water to their guests in a large silver bowl (*paîd*) holding a gallon or so, with a small *paîd* floating on the water. Other objects of luxury are silver lime-boxes, betel-boxes, hafts and scabbards of sabres. Broad zones of *repoussé*-work are relieved by fillets and beadings. The plain vessel having been hammered into shape is filled with a tough lac. This affords a ductile matrix, yielding where the chaser is applied and supporting the relief portions. The first step is to outline the work with a bronze punch, after which the lac is melted out and the metal annealed. Lac is poured in again, and a stage of relief raised. By successive annealings the full relief is obtained.* The figure designs are the signs of the zodiac, episodes from *zat*, and mythical animals. Women frequently carry some thousands of rupees worth of gold in the form

[554 415]

326 531

326 306

235. VILLAGE SILVERSMITH.

* The figure to the left in No. 237 is Go Thu Ban of Maulmain, the silversmith who designed and executed the tools used for the sides of this volume. The back is from the cover of a *Kambawzd*, to the colours of which it corresponds.

25: Ferrars E-5 (ca. 1890) 1901 AP1 Burma
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239. GOLD-BEATERS.

circulates in Burma is three times the value of the lowest Indian coin. Notes have no circulation as yet among the Burmans, although they now bear their figures of value in Burmese.

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[822]

Rubies and sapphires (*kyaunmyat*) are separated from the sand and gravel of certain localities, notably Mogôk, in the same way as gold is. Hard gems are cut with gem-dust on a horizontal wheel driven by a fly-wheel and treadle in a regular lathe-stand. Rock-crystal is cut in this way and also on a bone. Jade is found at Mogaung and is exported to China. Amber is found at Bamáw.

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Gold-leaf is used in enormous quantities for gilding *zedi* and images. Only pure gold is employed. The paper for separating the gold-leaf in the book in gold and silver bullion were used for exchange, as they still are in the Shan States. Chinese gold is current in the form of foil with the market stamp of fineness. It can be conveniently cut with scissors and weighed. Travellers often carry their bullion in this form. Silver is used by the Shans in the form of ingots which have to be hewn and assayed when making a purchase. The standard for commodities, wages and rent is silver, the fluctuation being referred to the gold. The lowest coin that

240. ALCHEMISTS.